

WE CLAIM:

1. A caster assembly comprising:
 - a housing comprising a first side portion and a second side portion, wherein the first side portion and the second side portion each have an opening;
 - an axle extending between the first side portion and the second side portion, the axle comprising two end portions;
 - wherein the first side portion comprises a first snap element and the first end of the axle comprises a second snap element in a snap fit arrangement with the first snap element, and wherein the second side portion of the housing comprises a third snap element and the second end of the axle comprises a fourth snap element in a snap fit arrangement with the third snap element; and
 - a wheel disposed between the first side portion and the second side portion, the wheel having a central axial opening, wherein the axle is positioned in the central axial opening.
2. The caster assembly of claim 1, wherein one of the first snap element and the second snap element comprises a first circumferential groove and the other of first snap element and the second snap element comprises a first circumferential ridge, and wherein one of the third snap element and the fourth snap element comprises a second circumferential groove and the other of the third snap element and the fourth snap element comprises a second circumferential ridge.
3. The caster assembly of claim 2, wherein the first and second circumferential ridges are formed in the openings of the first and second sides of the housing and the first and second circumferential grooves are formed on the first and second ends of the axle, respectively.

4. The caster assembly of claim 1, wherein the housing further comprises a top portion,
a step positioned at the top portion, and
a boss positioned on top of the step, the boss comprising an opening adapted to receive the pivot pin.
5. The caster assembly of claim 3, further comprising a furniture component, wherein the boss is adapted to fit within the furniture component.
6. The caster assembly of claim 1 further comprising a pivot pin, wherein the housing comprises two pieces, each piece having an opening, the pivot pin positioned through the openings in the two pieces.
7. The caster assembly of claim 1 further comprising a pivot pin, wherein the housing further comprises an opening which receives the pivot pin, and wherein one of the pivot pin and the housing comprises a circumferential groove and the other of the pivot pin and the housing comprises a circumferential ridge disposed in the groove with a snap fit arrangement.
8. The caster assembly of claim 1 wherein the wheel and the housing are made at least in part of plastic.
9. The caster assembly of claim 1 wherein the axle and the pivot pin are made at least in part of steel.
10. The caster assembly of claim 1 further comprising an attachment plate, wherein the pivot pin is attached to the attachment plate.
11. A caster assembly comprising:
a pivot pin;

a first housing, the first housing comprising a first top portion and a first side portion, the first top portion having a first pin opening;

a second housing comprising a second top portion and a second side portion, the second top portion having a second pin opening, wherein the pivot pin passes through the first and second pin openings;

an axle extending between the first side portion and the second side portion, the axle comprising a first end portion and a second end portion connected to the first side portion and the second side portion, respectively; and

a wheel disposed between the first side portion and the second side portion, the wheel having a central axial opening, wherein the axle is positioned in the central axial opening.

12. The caster assembly of claim 11, wherein the main housing further comprises:

a step positioned at the top of the main housing; and

a boss positioned on top of the step, the boss comprising an opening adapted to receive the pivot pin.

13. The caster assembly of claim 12, further comprising a furniture component, wherein the boss is adapted to fit within the furniture component.

14. The caster assembly of claim 11 wherein one of the first pin opening and the pivot pin comprises a circumferential ridge, and the other of the first pin opening and the pivot pin comprises a circumferential groove disposed in the ridge with a snap fit engagement.

15. The caster assembly of claim 11 wherein one of the second pin opening and the pivot pin comprises a circumferential ridge, and the other of the second pin opening and the pivot pin comprises a circumferential groove disposed in the ridge with a snap fit engagement.

16. The caster assembly of claim 11 wherein the wheel and the housing are made at least in part of plastic.

17. The caster assembly of claim 11 wherein the axle and the pivot pin are made at least in part of steel.

18. The caster assembly of claim 11 further comprising an attachment plate, wherein the pivot pin is attached to the attachment plate.

19. The caster assembly of claim 11, wherein one of the first housing and the first end of the axle comprises a first circumferential groove and the other of the first housing and the first end of the axle comprises a first circumferential ridge disposed in the first groove with a snap fit arrangement, and wherein one of the second housing and the second end of the axle comprises a second circumferential groove and the other of the second housing and the second end of the axle comprises a second circumferential ridge disposed in the second groove with a snap fit arrangement.

20. The caster assembly of claim 19, wherein the first and second circumferential ridges are formed in the openings of the first housing and the second housing, respectively, and the first and second circumferential grooves are formed on the first and second ends of the axle, respectively.

21. A method of assembling a caster assembly, the method comprising:
providing a housing comprising a first side portion and a second side portion, wherein the first side portion and the second side portion each have an axle opening;

providing a wheel, wherein the wheel comprises a central axial opening;

providing an axle, the axle comprising a first and second end portion;

inserting the axle in the central axial opening of the wheel;

snap fitting the first end portion of the axle into the first axle opening; and
 snap fitting the second end portion of the axle into the second axle opening.

22. The method of claim 21 wherein one of the first side portion of the housing and the first end portion of the axle comprises a first circumferential groove and the other of the first side portion of the housing and the first end portion of the axle comprises a first circumferential ridge, and wherein one of the second side portion of the housing and the second end of the axle comprises a second circumferential groove and the other of the second side portion of the housing and the second end of the axle comprises a second circumferential ridge.

23. The method of claim 22, wherein the first and second circumferential ridges are formed in the openings of the first and second sides of the housing and the first and second circumferential grooves are formed on the first and second ends of the axle, respectively.

24. The method of claim 21, further comprising
 providing a pivot pin, wherein the housing further comprises an opening which receives the pivot pin, and wherein one of the pivot pin and the housing comprises a circumferential groove and the other of the pivot pin and the housing comprises a circumferential ridge; and
 snap fitting the pivot pin into the opening in the housing

25. A method of assembling a caster assembly, the method comprising:
 providing a first housing, the first housing comprising a first top portion and a first side portion, the first top portion having a first pin opening, the first side portion having a first axle opening;

providing a second housing, the second housing comprising a second top portion and a second side portion, the second top portion having a second pin opening, the second side portion having a second axle opening;

providing a wheel, wherein the wheel comprises a central axial opening;

providing an axle, the axle comprising first and second end portions;

inserting the axle in the central axial opening of the wheel;

inserting the first end portion of the axle into the first axle opening;

inserting the second end portion of the axle into the second axle opening;

providing a pivot pin;

inserting the pivot pin into the first pin opening and the second pin opening.

26. The method of claim 25, further comprising snap fitting the pivot pin into the first pin opening.

27. The method of claim 25, further comprising snap fitting the pivot pin into the second pin opening.

28. The caster assembly of claim 25, further comprising snap fitting the first end portion of the axle into the first axle opening and snap fitting the second end portion into the second axle opening.